

ABSTRACT

An electric distance meter of the present invention comprises a device (1) to generate a modulation signal for modulating measuring light which is irradiated to an object, a device (4) to periodically generate an intermittent pulse signal for generating intermittent modulated measuring light by intermittently adding the modulation signal to a light emitting element (10), a device (5A) to generate an internal frequency signal (S5) with a frequency different from the modulation signal (S2), a light receiving element (27) for outputting a light receiving signal by receiving the intermittent modulated measuring light, a device (7) to generate an intermittent difference frequency signal (S7) by inputting the light receiving signal (S4) and the signal (S5), an arithmetic logical unit (36) for calculating a distance to the object based on a phase difference between a phase of the signal (S7) output from the device (7) and a phase of the intermittent difference frequency signal obtained through a reference optical path.